

MCAQ Compliance Inspection Checklist – Generators

Industry Overview: Generator sets are engine/generator combinations that provide electric power at a facility. The motive power for the generator may be supplied by diesel or spark ignition reciprocating internal combustion engines (RICE), rotary internal combustion engines, or gas turbines. Fuel types such as natural gas, LPG, diesel fuel, fuel oil, or kerosene are combusted in the engines resulting in a large potential for particulate, sulfur dioxide, nitrogen oxides, and HAP/TAP emissions. Generators can be for emergencies, peak shaving, or for general electric power. Generators may be mobile or stationary; this checklist is for stationary generators only. Inspections should involve an evaluation of operational and maintenance practices and emissions control and monitoring equipment if it is installed; if possible, conduct the inspection to coincide with an operational test if the facility testing schedule is known.

Pollutants of concern: TSP, PM-10, PM-2.5, CO, VOC, SO₂, NO_x, HAPs, TAPs

Applicability: Generators may be subject to a number of regulations depending on the source (major or area), engine type and size, purchase date, manufacture date, and or installation date. Those regulations are: MCAPCO, 40CFR 60 Subpart IIII or Subpart JJJJ (NSPS), and 40 CFR 63 Subpart ZZZZ (NESHAP). Check the permit to know which rules are applicable to the specific emission sources at the facility.

Note: Refer to Specific Conditions and Limitations and Insignificant Activities Tables in the permit for additional inspection checkpoints

Inspection Points	Inspected?		Results and Comments
	Yes	No	
A. Fuel Characteristics			
1. Verify fuel type(s) used.			
B. Engine/Generator			
1. Verify engine/generator nameplate specifications/data.			
2. Check manufacture and install dates and engine compliance certification.			
3. Verify engine/generator service/use.			
4. If a performance test (PT) is required, check operating data and limits.			
C. Control Equipment (if required and equipped)			
1. Check catalyst system pressure drop for compliance with PT operating limits.			
2. Check catalyst inlet gas temperature.			
3. Check any CEMS and/or CPMS for compliance with PT emission/operating limits.			
4. For CEMS/CPMS (when required), check that required records of operation, performance, calibrations, and maintenance are maintained.			

D. Records Review			
1. Check required monitoring, inspection, and maintenance records: <ul style="list-style-type: none"> • Oil change frequency. • Air cleaner inspection. • Hoses and belts inspection and replacement. • Spark plugs inspection (if applicable). • Minimize idle time and start up time (30 min or less). 			
2. For emergency generators, check operational records, hours, reason for operation.			
3. Check notification and reporting records.			
4. Confirm compliance with PT requirements.			

Notes:

Name / Date